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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/666,660	09/17/2003	Michael Thomas Benhase	TUC9-2003-0021US1	8984

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EXAMINER	
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ART UNIT	PAPER NUMBER
2113	

DATE MAILED: 11/27/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/666,660	BENHASE ET AL.	
	Examiner	Art Unit	
	Christopher S. McCarthy	2113	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *12 September 2006*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-30* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-30* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *17 September 2003* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☒ Other: *response to arguments*.

DETAILED ACTION

1. Claims 1-3, 5-6, 1316, 18-19, 20-23, 25-29 are rejected under 35 U.S.C. 102(b) as being anticipated by Hardjono U.S. Patent 6,425,004, as cited in prior office action, which was mailed on 4/12/06.

2. Claims 7-9, 11-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hardjono in view of *Microsoft Computer Dictionary,* as cited in prior office action, which was mailed on 4/12/06.

3. Claims 4, 17, 24, 30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hardjono in view of Goldberg et al. U.S. Patent Application Publication US2003/0115516, as cited in prior office action, which was mailed on 4/12/06.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 1-3, 5-6, 1316, 18-19, 20-23, 25-29 are rejected under 35 U.S.C. 102(b) as being anticipated by Hardjono U.S. Patent 6,425,004.

As per claim 1, Hardjono teaches an apparatus for identifying a faulty communication module, the apparatus comprising: a communication module configured to verify a first check value for a data packet, append an inherent identifier for the communication module to the data packet, compute a second check value for the data packet, and include the second check value with a data packet (column 2, lines 15-17); a storage module in communication with the communication module and configured to store the data packet (column 2, lines 26-41, wherein the packet is stored in the receiving module input port buffer/queue); and a validation module in communication with the storage module, the validation module configured to verify the second check value and the first check value to determine if the data packet is corrupt (column 2, lines 42-55, 35-38, column 8, lines 31-39; column 1, lines 50-53); and the validation module further configured to identify the communication module as faulty via the inherent identifier if the second check value is valid and the first check value is not valid (column 6, lines 34-39; column 4, line 52 – column 5, line 24)

As per claim 2, Hardjono teaches the apparatus of claim 1, wherein the validation module is further configured to report the communication module identified by the inherent identifier as faulty (column 3, lines 58-60).

As per claim 3, Hardjono teaches the apparatus of claim 1, wherein the validation module is configured to retrieve the data packet from the storage module (column 2, lines 24-55, figure 11, wherein the logic retrieves the data from the receiver storage (input port buffer)).

As per claim 5, Hardjono teaches the apparatus of claim 1, wherein the storage module is configured to take the communication module off-line (column 3, lines 58-60, wherein isolation is the disabling or disconnection of the node from the network).

As per claim 6, Hardjono teaches the apparatus of claim 1, wherein the identifier comprises an identifier unique to the communication module (column 2, lines 11-12).

As per claim 13, Hardjono teaches a method for identifying a faulty communication module, the method comprising: verifying a first check value for a data packet; appending an inherent identifier for a communication module to the data packet; computing a second check value for the data packet and including the second check value with the data packet; verifying the second check value and the first check value to determine if the data packet is corrupt; and identifying the communication module as faulty via the inherent identifier if the second check value is valid and the first check value is not valid (column 6, lines 34-39; column 4, line 52 – column 5, line 24)

As per claim 14, Hardjono teaches the method of claim 13, further comprising reporting the communication module identified via with the inherent identifier as faulty (column 3, lines 58-60; column 6, lines 34-39; column 4, line 52 – column 5, line 24)

As per claim 15, Hardjono teaches the method of claim 13, further storing the data packet on a storage device (column 2, lines 24-55).

As per claim 16, Hardjono teaches the method of claim 13, further comprising retrieving the data packet from a storage device (column 2, lines 24-55).

As per claim 18, Hardjono teaches the method of claim 13, further comprising taking the communication module off-line (column 3, liens 58-60).

As per claim 19, Hardjono teaches the method of claim 13, further comprising acquiring a unique identifier for the communication module (column 2, lines 11-12).

As per claim 20, Hardjono teaches an apparatus for identifying a faulty communication module, the apparatus comprising: means for verifying a first check value for a data packet; means for appending an inherent identifier for a communication module to the data packet; means for computing a second check value for the data packet and including the second check value with the data packet; means for verifying the second check value and the first check value to determine if the data packet is corrupt; and means for identifying the communication module as faulty via the inherent identifier if the second check value is valid and the first check value is not valid (column 6, lines 34-39; column 4, line 52 – column 5, line 24).

As per claim 21, Hardjono teaches the apparatus of claim 20, further comprising means for reporting the communication module identified via the inherent identifier as faulty (column 3, lines 58-66).

As per claim 22, Hardjono teaches the apparatus of claim 20, further comprising means for storing the data packet (column 2, lines 24-55).

As per claim 23, Hardjono teaches the apparatus of claim 20, further comprising means for retrieving the data packet from a storage module (column 2, lines 24-55).

As per claim 25, Hardjono teaches the apparatus of claim 20, further comprising means for taking the communication module off-line (column 3, lines 58-60).

As per claim 26, Hardjono teaches the apparatus of claim 20, further comprising means for acquiring the inherent identifier for the communication module (column 2, lines 11-12).

As per claim 27, Hardjono teaches an article of manufacture comprising a program storage medium readable by a processor and embodying one or more instructions executable by a processor to perform a method for identifying a faulty communication module, the method

comprising: verifying a first check value for a data packet; appending an inherent identifier for a communication module to the data packet; computing a second check value for the data packet and including the second check value with the data packet; verifying the second check value and the first check value to determine if the data packet is corrupt; and identifying the communication module as faulty via the inherent identifier if the second check value is valid and the first check value is not valid (column 6, lines 34-39; column 4, line 52 – column 5, line 24).

As per claim 28, Hardjono teaches the article of manufacture of claim 27, further comprising reporting the communication module identified via the inherent identifier as faulty (column 3, lines 58-60).

As per claim 29, Hardjono teaches the article of manufacture of claim 27, further comprising retrieving the data packet from a storage module (column 2, lines 24-55).

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

7. Claims 7-9, 11-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hardjono in view of *Microsoft Computer Dictionary* (referred hereon as Microsoft).

As per claim 7, Hardjono teaches the system for identifying a faulty communication module, the system comprising: a computer configured to send and receive data packets; and a

computer in communication with the computer host, the server comprising a communication module configured to verify a first check value for a data packet, append an inherent identifier for the communication module to the data packet, compute a second check value for the data packet, and include the second check value with the data packets, a storage module configured to store the data packets, and a validation module configured to verify the second check value and the first check value to determine if the data packet is corrupt, and identify the communication module as faulty via the inherent identifier if the second check value is valid and the first check value is not valid (column 6, lines 34-39; column 4, line 52 – column 5, line 24). However, Hardjono does not explicitly teach wherein the computers are a host and server. Microsoft does teach wherein a computer can be a host and a server (page 221, wherein a host computer can also serve as a server on a network). It would have been obvious to one of ordinary skill in the art at the time the invention was made to utilize the computers of Hardjono as a host and/or a server. One of ordinary skill in the art would have been motivated to utilize the computers of Hardjono as a host and/or a server because Microsoft teaches that a host/server computer is one that provides access to other computers on the network; and explicit desire in Hardjono (column 1, lines 11-13; column 2, lines 1-3, wherein he teaches his computers to be communication devices on a network that propagate data from one to another).

As per claim 8, Hardjono teaches the system of claim 7, wherein the validation module is further configured to report the communication module identified via the inherent identifier as faulty (column 3, lines 58-60).

As per claim 9, Hardjono teaches the system of claim 7, wherein the validation module retrieves the data packets from the storage module (column 2, lines 24-55).

As per claim 11, Hardjono teaches the system of claim 7, wherein the storage module is further configured to take the communication module off-line (column 3, lines 58-60).

As per claim 12, Hardjono teaches the system of claim 7, wherein the identifier comprises an identifier unique to the communication module (column 2, lines 11-12).

8. Claims 4, 17, 24, 30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hardjono in view of Goldberg et al. U.S. Patent Application Publication US2003/0115516.

As per claim 4, Hardjono teaches the apparatus of claim 1. Hardjono does not teach wherein the first check value is a CRC value. Goldberg does teach wherein the first check value is a CRC value (paragraph 0032). It would have been obvious to one of ordinary skill in the art at the time the invention was made to use the CRC error detection process of Goldberg in the packet error detection process of Hardjono. One of ordinary skill in the art at the time the invention was made would have been motivated to use the CRC error detection process of Goldberg in the packet error detection process of Hardjono because Goldberg teaches the CRC method as an effective way to detect errors in a packet driven network (paragraphs 0006, 0032); this is an explicit desire of Hardjono (column 2, lines 36-38).

As per claim 17, Hardjono teaches the method of claim 13. Hardjono does not teach wherein the first check value is a CRC value. Goldberg does teach wherein the first check value is a CRC value (paragraph 0032). It would have been obvious to one of ordinary skill in the art at the time the invention was made to use the CRC error detection process of Goldberg in the packet error detection process of Hardjono. One of ordinary skill in the art at the time the

invention was made would have been motivated to use the CRC error detection process of Goldberg in the packet error detection process of Hardjono because Goldberg teaches the CRC method as an effective way to detect errors in a packet driven network (paragraphs 0006, 0032); this is an explicit desire of Hardjono (column 2, lines 36-38).

As per claim 24, Hardjono teaches the apparatus of claim 20. Hardjono does not teach wherein the first check value is a CRC value and the second check value is a longitudinal redundancy check value. Goldberg does teach wherein the first check value is a CRC value and the second check value is a longitudinal redundancy check value (paragraph 0032). It would have been obvious to one of ordinary skill in the art at the time the invention was made to use the CRC/LRC error detection process of Goldberg in the packet error detection process of Hardjono. One of ordinary skill in the art at the time the invention was made would have been motivated to use the CRC/LRC error detection process of Goldberg in the packet error detection process of Hardjono because Goldberg teaches the CRC/LRC method as an effective way to detect errors in a packet driven network (paragraphs 0006, 0032); this is an explicit desire of Hardjono (column 2, lines 36-38).

As per claim 30, Hardjono teaches the article of manufacture of claim 27. Hardjono does not teach wherein the first check value is a CRC value and the second check value is a longitudinal redundancy check value. Goldberg does teach wherein the first check value is a CRC value and the second check value is a longitudinal redundancy check value (paragraph 0032). It would have been obvious to one of ordinary skill in the art at the time the invention was made to use the CRC/LRC error detection process of Goldberg in the packet error detection process of Hardjono. One of ordinary skill in the art at the time the invention was made would

have been motivated to use the CRC/LRC error detection process of Goldberg in the packet error detection process of Hardjono because Goldberg teaches the CRC/LRC method as an effective way to detect errors in a packet driven network (paragraphs 0006, 0032); this is an explicit desire of Hardjono (column 2, lines 36-38).

9. Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hardjono in view of Microsoft in view of Goldberg.

As per claim 10, Hardjono in view of Microsft teaches the system of claim 7. Hardjono in view of Microsoft does not teach wherein the second check value is a longitudinal redundancy check value. Goldberg does teach wherein wherein the second check value is a longitudinal redundancy check value (paragraph 0032). It would have been obvious to one of ordinary skill in the art at the time the invention was made to use the LRC error detection process of Goldberg in the packet error detection process of Hardjono. One of ordinary skill in the art at the time the invention was made would have been motivated to use the LRC error detection process of Goldberg in the packet error detection process of Hardjono because Goldberg teaches the LRC method as an effective way to detect errors in a packet driven network (paragraphs 0006, 0032); this is an explicit desire of Hardjono (column 2, lines 36-38).

Response to Arguments

10. Applicant's arguments filed 9/12/06 have been fully considered but they are not persuasive.

The applicant has amended the claims and has argued that Hardjono does not teach verifying a first check value, appending an inherent identifier of the module to the data packet, computing a second check value and including in packet, and verifying the check values to see if the first check value is not valid. The examiner respectfully disagrees. Using column 4, line 45 – column 5, line 26 and figures 3, 5, and 7, the examiner interprets Hardjono as broadly teaching these new limitations. For instance, figure 2, shows the packet including a sector key (302), which is computed using a table utilizing the sector key identifier, as shown in the data field of figure 2; the sector key (302) is a value and is appended to the data packet (figure 2). The sector key (302) is used to compute another value the sector tag (306) and is appended the data packet, as shown in figure 5. In step 710 of figure 7, the sector tag (306) and the verification tag are compared. The verification tag result of this compare is used to see if it matches the original sector tag in the packet; if not, the sector tag is deemed faulty and the packet is dropped. Furthermore, in column 6, lines 34-38, if this determination is made, the originating device is deemed as misbehaving, that is, faulty. It identifies the faulty device using a router tag, which is computed using the sector tag (306), which is computed using the sector key (302), which, as explained above, is computed using the inherent sector key identifier, as shown in figure 2. So the inherent sector key identifier is a factor calculated into the determination of which module is faulty.

In light of the above arguments, all claims stand rejected.

Conclusion

11. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Christopher S. McCarthy whose telephone number is (571)272-3651. The examiner can normally be reached on M-F, 9 - 5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert Beausoliel can be reached on (571)272-3645. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

csm